UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,095	09/12/2003	Ashish Thusoo	50277-2256	8871

42425 7590 12/22/2006		EXAMINER
HICKMAN PALERMO TRUONG & BECKER/ORACLE 2055 GATEWAY PLACE SUITE 550 SAN JOSE, CA 95110-1089		BELL, CORY C

ART UNIT	PAPER NUMBER
2164	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/662,095	THUSOO, ASHISH
	Examiner	**Art Unit**	
	Cory C. Bell	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>23 October 2006</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20 and 22-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-20 and 22-25* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-20, and 22-25 have been examined.

2.   Claim 21 has been cancelled.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

4.   **Claims 15-20, and 22-25** are rejected because the method does not produce a "useful,

tangible, and concrete" the result returned in claims 15-25 is non-tangible as it can be embodied

in a carrier wave.   As applicant defines a computer-readable medium to include transmission

media and carrier waves see para 35 or applicants specification.

Claim Rejections - 35 USC § 103

29.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 1-7, 10, and 15-20 are rejected under 35 U.S.C. 103 as being obvious over

PL/SQL User's Guide and Reference Release 2 (9.2) hereafter know as [A] (This reference was

included with the information discloser statement and has been labeled A) or [A] in view of the

applicant admitted prior art[aapa].

6.   **Claim 1** is rejected for the following reasons:

[A] Teaches,

receiving a database statement that specifies a DML operation that modifies

data in one or more columns in a database,*(Page 53 of chapter 5, which teaches*

modifying a "sal" column, this is written in SQL which is a DML which is inherently

recieved) and

contains a clause that specifies an aggregate operation to be performed on

a plurality of values associated with the data*(Page 53 of chapter 5, teaches aggregating*

that values of the ename, jab, and sal variables into an emp_info variable); and

in response to receiving the database statement,

performing: the DML operation on the one or more columns in the

database.

performing the aggregate operation on the plurality of values(the query ins inherently run

and thus performing these features) and

returning as a result of the database statement a result of the aggregate

operation*(Page 53 of chapter 5, teaches aggregating that values of the ename, jab, and*

sal variables into an emp_info variable which is then returned).

[A] However fails to expressly disclose the use of an aggregate function in a returning

clause. However, it would have been obvious to one of ordinary skill in the art to include

aggregate functions as presently amended. As can be seen for the following reasons:

First, the RETURNING clause is intended to eliminate the need for a select clause, [A]

page 9 *"This eliminates the need to SELECT the row after an insert or update, or before*

a delete." Thus to truly eliminate the need for the SELECT clause it would need to integrate all the features of the SELECT clause, i.e. the ability to perform aggregate functions as claimed. Which are used to, as stated on pages 9 and 10 of reference [A], *"As a result, fewer network round trips, less server CPU time, fewer cursers, and less server memory are required."* Thus, it would have been obvious to one of ordinary skill in that art to provide these feature in the return clause to provide the advantage of full eliminating the need for the select after an insert or update or before a delete. Reference [A] also shows the need to aggregate data further as it states *"Now do computations involving name and new_sal."* The [aapa] teaches providing the desired agragate functions in the computations in para 11 of the background.

7.   **Claim 2** is rejected because the aggregation occurs when the change is preformed as they are in the same database statement.

8.   **Claim 3** The method of claim 1, wherein the modified data includes values of the data before the DML operation *(sal inherently has a initial value else the update expression would be invalid)*.

9.   **Claim 4** is rejected because the data must inherently have a value that it is changed to when it is updated.

10.   **Claim 5** is rejected for reasons shown in the rejection of claim 1.

11.   **Claim 6** is rejected because the change being a deletion is shown in the last paragraph of page 9 of [A] section 12.

12.   **Claim 7** is rejected because the method inherently has an SQL engine to process the SQL

statements.

13.   **Claim 10** is rejected because the system inherently has a client interface to submit a

database statement.

14.   **Claim 15** is rejected for the following reasons:

See Claim 1 rejection.

15.   **Claim 16** is rejected for the following reasons:

See Claim 2 rejection.

16.   **Claim 17** is rejected for the following reasons:

See Claim 3 rejection.

17.   **Claim 18** is rejected for the following reasons:

See Claim 4 rejection.

18.   **Claim 19** is rejected for the following reasons:

See Claim 5 rejection.

19.   **Claim 20** is rejected for the following reasons:

See Claim 6 rejection.

30.   Claims 8, 9, 11, 13, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over [A] in view of Oracle Corperation, "Oracle9i SQL Referance, Release 2 (9.2),

known hereafter as [B].

31.   **Claim 8** is rejected for the following reasons:

32.   Reference [A] teaches the claims upon which claim 8 is dependant. The system

inherently contains and SQL Engine and a server side stub, such as the code that

facilitates the network communications. The admitted prior art also teaches the SQL

engine and the Server side stub, see paras 14 and 15 of the background. Reference [B]

teaches Aggregate functions, 4-6 to 4-8 that *"return a single result based on groups of*

rows. " Thus, it would have been obvious to one of ordinary skill in the art to include

aggregate functions in the system with the SQL engine and server side stub. As can be

seen for the following reasons: First, the RETURNING clause is intended to eliminate

the need for a select clause, [A] page 9 *"This eliminates the need to SELECT the row*

after an insert or update, or before a delete. " Thus to truly eliminate the need for the

SELECT clause it would need to integrate all the features of the SELECT clause, i.e. the

ability to perform aggregate functions. Which are used to, as stated on pages 9 and 10 of

reference [A], *"As a result, fewer network round trips, less server CPU time, fewer*

cursers, and less server memory are required. " Reference [A] also shows the need to

aggregate data further as it states *"Now do computations involving name and new_sal. "*

33.   **Claim 9** is rejected for the following reasons:

Reference [A] teaches the claims upon which claim 9 is dependent. The system also

inherently has an SQL engine and a client interface. Reference [B] teaches Aggregate

functions, 4-6 to 4-8 that *"return a single result based on groups of rows. "* Thus, it

would have been obvious to one of ordinary skill in the art to include aggregate functions

in the system. As can be seen for the following reasons: First, the RETURNING clause

is intended to eliminate the need for a select clause, [A] page 9 *"This eliminates the need*

to SELECT the row after an insert or update, or before a delete." Thus to truly eliminate the need for the SELECT clause it would need to integrate all the features of the SELECT clause, i.e. the ability to perform aggregate functions. To, as stated on pages 9 and 10 of reference [A], *"As a result, fewer network round trips, less server CPU time, fewer cursers, and less server memory are required."* Reference [A] also shows the need to aggregate data further as it states *"Now do computations involving name and new_sal."*

34.   **Claim 11** is rejected for the following reasons:

Reference [A] teaches the claims upon which claim 11 is dependent. The system also inherently has an SQL engine and a client interface. [B] teaches Aggregate functions, 4-6 to 4-8 that *"return a single result based on groups of rows"* and multiple aggregate functions, 4-7 *"AVG(MAX(SAL))."* Thus, it would have been obvious to one of ordinary skill in the art to include aggregate functions in the system. As can be seen for the following reasons: First, the RETURNING clause is intended to eliminate the need for a select clause, [A] page 9 *"This eliminates the need to SELECT the row after an insert or update, or before a delete."* Thus to truly eliminate the need for the SELECT clause it would need to integrate all the features of the SELECT clause, i.e. the ability to perform aggregate functions. To, as stated on pages 9 and 10 of reference [A], *"As a result, fewer network round trips, less server CPU time, fewer cursers, and less server memory are required."* Reference [A] also shows the need to aggregate data further as it states *"Now do computations involving name and new_sal."*

35.   **Claim 13** is rejected for the following reasons:

Reference [A] teaches the claims upon which claim 13 is dependent, as well inherently

containing the call interface as it includes a server and a network as stated on pages 9 and

10, *"fewer network round trips, less server CPU time,.* Reference [B] teaches Aggregate

functions, 4-6 to 4-8 that *"return a single result based on groups of rows"* and multiple

aggregate functions, 4-7 *"AVG(MAX(SAL))."* Thus, it would have been obvious to one

of ordinary skill in the art to include aggregate functions in the system. As can be seen

for the following reasons: First, the RETURNING clause is intended to eliminate the

need for a select clause, [A] page 9 *"This eliminates the need to SELECT the row after an*

insert or update, or before a delete." Thus to truly eliminate the need for the SELECT

clause it would need to integrate all the features of the SELECT clause, i.e. the ability to

perform aggregate functions. To, as stated on pages 9 and 10 of reference [A], *"As a*

result, fewer network round trips, less server CPU time, fewer cursers, and less server

memory are required." Reference [A] also shows the need to aggregate data further as it

states *"Now do computations involving name and new_sal."*

36.   **Claim 22** is rejected for the following reasons:

See claim 11 rejection.

37.   **Claim 24** is rejected for the following reasons:

See claim 13 rejection.

Claims 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over [A] in

view of [B] in further view of US patent Number 6567803 know hereafter as Ramasey.

38.   **Claim 12** is rejected for the following reasons:

Reference [A] teaches the claims upon which claim 11 is dependent. The system also inherently has an SQL engine and a client interface. Reference [B] teaches Aggregate functions, 4-6 to 4-8 that *"return a single result based on groups of rows"* and multiple aggregate functions, 4-7 *"AVG(MAX(SAL))."* See Claim 11 rejection for more information. Ramasay teaches using operator trees corresponding to different aggregate functions *(Col 4 lines 6-16)* and an access plan that lists function and includes structures pointing to workspaces performing the functions*(Col 4 lines 17-46)*. It would have been obvious to one of ordinary skill in the art at the time of the invention to include these features as they provide a method for providing an optimized query that saves processing time and allow for parallel processing.

39.   **Claim 23** is rejected for the following reasons:

See claim 12 rejection.

20.   Claims 14 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over [A] in view of applicants admitted prior art.

21.   [A] teaches the claims upon which claims 14 and 25 are dependant, however it fails to expressly disclose performing the aggregations on old values. This is taught in the second and third paragraphs of the instant applications background. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to include these features, as it would provide the user with useful information.

Response to Arguments

22.   Applicants' arguments with regard to the rejection of the claims under 35 USC 102 are moot in view of the new grounds of rejection.

23.   The rejection under 35 USC 101 stands, although the applicant may be correct that a

carrier wave cannot be stored on a computer-readable medium, this does not pertain to the

rejection at hand which is on the basis that the computer readable medium is a carrier wave.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The

examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAM RIMELL
PRIMARY EXAMINER